

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P144568

Luminaire Tested: **LDRL-RW-E06-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144568
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33700)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-RW-E06-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (126) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15210.4 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

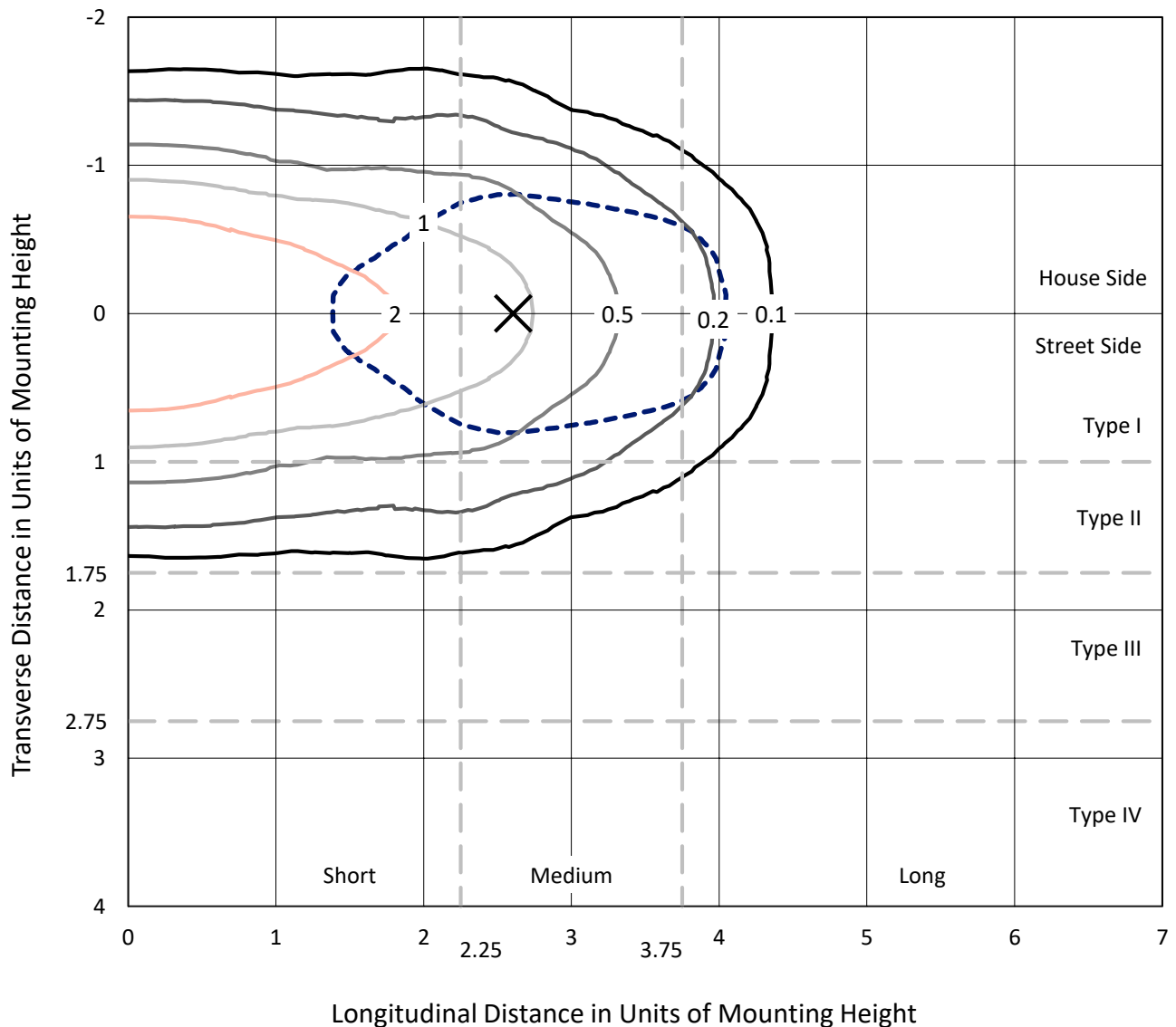


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Iso-Footcandle Lines of Horizontal Illumination

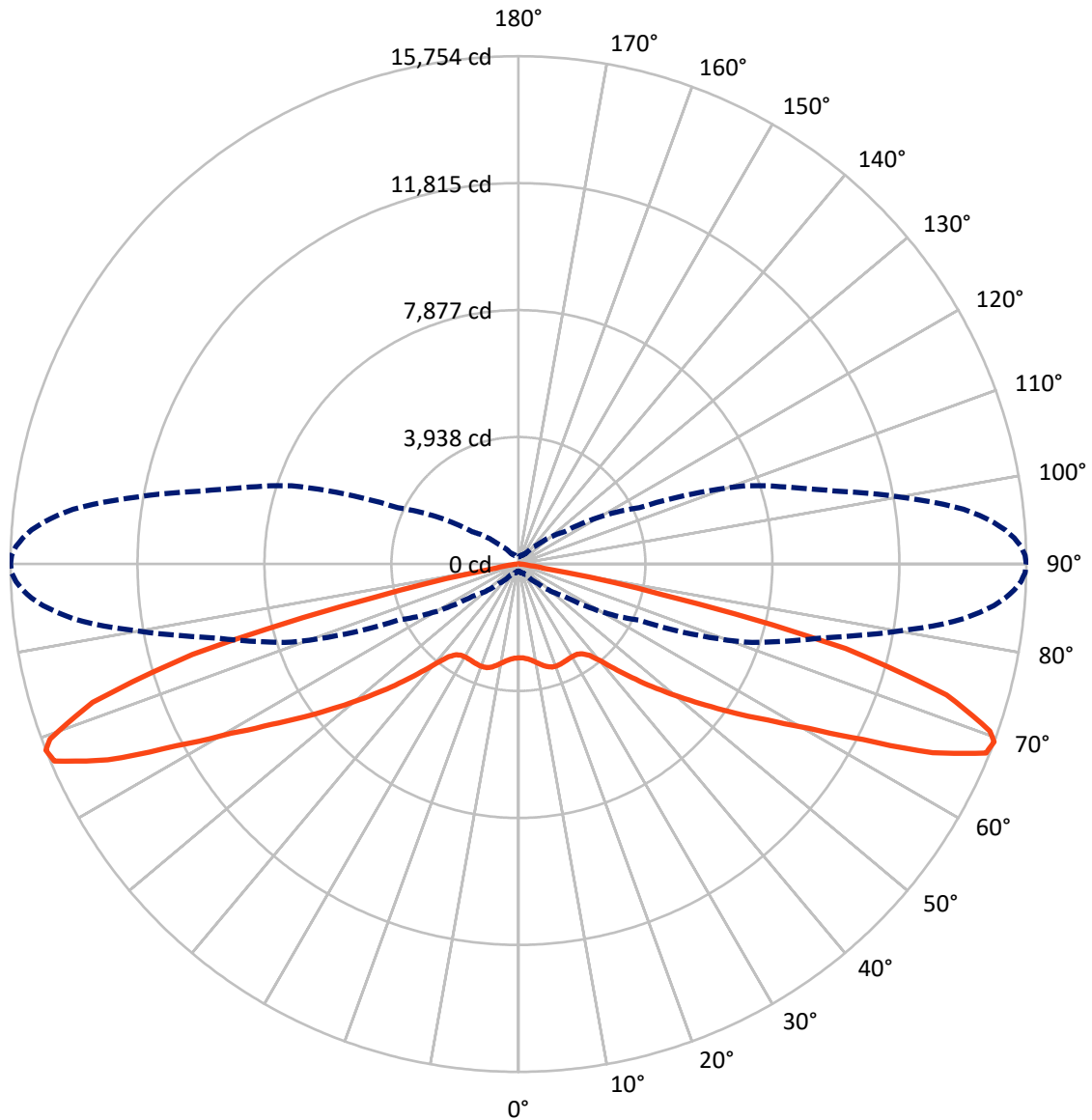
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7605.2	0.0	7605.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7605.2	0.0	7605.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	15210.4	0.0	15210.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.0	1.9
10°-20°	897.5	5.9
20°-30°	1453.6	9.6
30°-40°	1810.8	11.9
40°-50°	2254.3	14.8
50°-60°	2766.2	18.2
60°-70°	3411.5	22.4
70°-80°	2120.8	13.9
80°-90°	210.7	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	15210.4	100.0
0°-180°	15210.4	100.0



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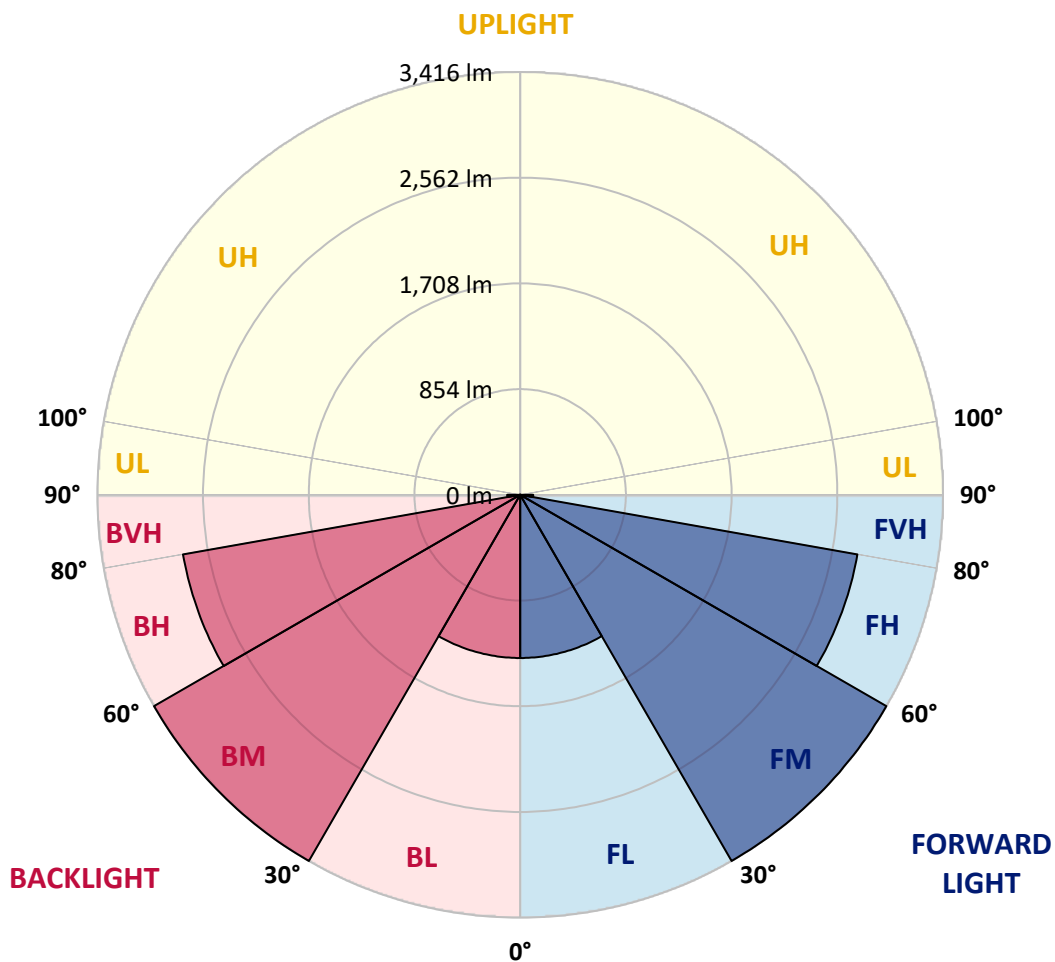
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1318.1	8.7			
FM	(30°-60°)	3415.7	22.5			
FH	(60°-80°)	2766.2	18.2			G2/5000
FVH	(80°-90°)	105.3	0.7			G2/225
BL	(0°-30°)	1318.1	8.7	B3/2500		
BM	(30°-60°)	3415.7	22.5	B3/5000		
BH	(60°-80°)	2766.2	18.2	B4/5000		G4/5000
BVH	(80°-90°)	105.3	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8
2.5°	2920.4	2917.4	2922.9	2928.0	2926.4	2927.4	2925.4	2923.0	2923.1	2923.4	2923.6
5°	2943.2	2940.2	2945.2	2949.8	2951.3	2954.8	2955.8	2954.3	2955.0	2955.7	2956.4
7.5°	2970.5	2968.0	2974.5	2980.6	2992.3	2998.4	3004.4	3010.6	3011.0	3011.6	3012.0
10°	2996.3	2994.8	3005.4	3018.6	3037.4	3051.5	3068.8	3085.4	3086.8	3088.1	3089.4
12.5°	3013.0	3013.0	3029.2	3053.0	3085.4	3114.4	3143.7	3172.0	3174.7	3177.3	3180.0
15°	3012.0	3014.0	3038.9	3082.4	3138.2	3189.2	3225.2	3256.1	3258.6	3261.2	3263.7
17.5°	2991.3	2991.8	3027.2	3096.6	3183.7	3259.6	3306.2	3323.0	3323.9	3324.8	3325.7
20°	2933.0	2937.1	2987.2	3088.0	3219.2	3324.0	3368.0	3361.0	3359.4	3357.9	3356.4
22.5°	2833.3	2838.4	2905.2	3040.4	3225.8	3365.5	3411.0	3379.2	3374.3	3369.4	3364.6
25°	2694.6	2703.1	2775.6	2948.8	3181.2	3377.6	3438.9	3387.8	3380.2	3372.6	3365.0
27.5°	2534.0	2538.0	2623.6	2805.4	3077.4	3337.2	3451.6	3405.5	3396.0	3386.5	3376.9
30°	2348.1	2358.8	2447.9	2637.8	2931.0	3243.0	3446.6	3440.0	3429.3	3418.7	3408.0
32.5°	2163.3	2172.4	2260.0	2464.6	2762.4	3111.8	3421.2	3492.1	3483.2	3474.3	3465.3
35°	1977.0	1988.1	2078.2	2298.0	2594.8	2962.9	3381.2	3566.6	3562.7	3558.8	3555.0
37.5°	1813.4	1820.5	1909.1	2137.5	2447.9	2826.7	3329.0	3666.3	3675.0	3683.7	3692.4
40°	1646.8	1653.8	1746.6	1980.5	2312.7	2710.2	3281.0	3791.8	3815.7	3839.5	3863.3
42.5°	1486.8	1492.8	1582.5	1816.0	2162.3	2609.4	3252.1	3943.8	3989.5	4035.2	4080.8
45°	1322.7	1326.8	1410.8	1638.2	1990.6	2492.0	3244.4	4114.4	4180.4	4246.3	4312.2
47.5°	1161.2	1170.8	1257.4	1473.1	1794.6	2323.9	3233.4	4303.4	4390.8	4478.2	4565.6
50°	1006.7	1017.4	1106.5	1311.0	1605.2	2124.4	3176.6	4517.6	4624.1	4730.6	4837.2
52.5°	849.2	859.9	949.0	1144.4	1429.6	1899.5	3018.6	4742.4	4869.1	4995.8	5122.5
55°	681.1	685.2	776.8	972.8	1253.8	1711.2	2767.0	4948.4	5101.9	5255.3	5408.8
57.5°	495.2	509.0	599.6	781.8	1074.6	1544.5	2446.9	5053.8	5245.3	5436.8	5628.4
60°	357.6	366.6	446.1	589.4	871.5	1380.9	2162.8	4976.8	5232.5	5488.1	5743.7
62.5°	282.6	292.6	354.0	444.1	674.0	1201.2	1977.5	4765.7	5124.3	5482.9	5841.6
65°	250.2	259.2	316.0	360.6	515.5	1016.3	1861.0	4556.6	5040.6	5524.6	6008.6
67.5°	228.4	238.0	287.6	318.0	425.9	897.4	1805.8	4398.6	4957.5	5516.5	6075.4
69°	218.2	226.8	272.4	300.8	401.5	856.8	1746.6	4131.2	4685.4	5239.6	5793.8
70°	212.6	220.2	261.8	290.2	392.0	823.4	1659.0	3813.2	4347.9	4882.6	5417.4
72.5°	197.0	202.0	237.0	263.3	358.5	657.3	1251.3	2690.5	3143.8	3597.1	4050.5
75°	174.7	180.8	211.7	236.0	273.4	395.0	783.4	1561.8	1872.4	2183.0	2493.6
77.5°	149.9	157.0	182.3	220.8	220.2	257.2	475.5	896.8	1047.8	1198.6	1349.6
80°	128.6	134.7	157.5	218.3	184.4	203.6	354.5	668.9	729.7	790.5	851.3
82.5°	100.8	105.8	132.1	180.3	147.4	155.0	269.9	609.2	650.4	691.6	732.9
85°	63.3	65.3	96.2	124.6	104.8	93.7	173.6	469.0	498.9	528.9	558.9
87.5°	25.3	30.8	46.6	44.6	45.1	37.4	56.2	169.2	184.5	199.9	215.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8
2.5°	2923.8	2924.0	2922.9	2921.4	2922.9	2921.4	2921.9	2923.4	2922.9	2923.0	2921.9
5°	2957.1	2957.9	2957.9	2954.8	2956.4	2956.8	2957.4	2956.4	2956.8	2957.8	2955.8
7.5°	3012.6	3013.0	3014.5	3016.0	3015.0	3015.5	3016.6	3015.6	3014.1	3017.6	3015.0
10°	3090.7	3092.0	3092.0	3096.6	3094.5	3096.1	3100.6	3100.6	3098.1	3101.6	3100.6
12.5°	3182.6	3185.2	3184.8	3184.2	3186.2	3187.8	3192.8	3193.8	3194.8	3200.4	3198.4
15°	3266.2	3268.8	3270.8	3271.8	3275.4	3276.4	3279.4	3281.4	3283.0	3285.0	3286.0
17.5°	3326.6	3327.5	3330.6	3329.0	3334.1	3333.1	3336.6	3338.2	3339.7	3342.2	3343.8
20°	3354.9	3353.4	3353.9	3352.4	3352.3	3353.4	3353.8	3355.9	3354.9	3357.4	3359.4
22.5°	3359.8	3354.9	3351.8	3348.3	3346.8	3343.8	3343.8	3344.8	3341.2	3343.8	3346.8
25°	3357.4	3349.8	3344.2	3338.2	3332.6	3327.6	3324.4	3323.4	3321.0	3321.0	3323.4
27.5°	3367.4	3357.9	3349.8	3339.6	3332.6	3325.5	3318.9	3313.8	3308.8	3307.8	3307.8
30°	3397.4	3386.8	3377.6	3365.0	3353.8	3344.8	3335.6	3328.6	3319.0	3314.8	3310.3
32.5°	3456.4	3447.5	3434.8	3423.7	3410.6	3399.4	3387.3	3376.1	3365.0	3354.9	3350.8
35°	3551.2	3547.3	3540.2	3532.6	3520.0	3505.8	3495.6	3482.4	3469.8	3455.2	3451.1
37.5°	3701.1	3709.8	3705.8	3700.2	3696.7	3692.2	3678.4	3669.8	3661.2	3649.1	3646.6
40°	3887.1	3910.9	3934.7	3950.4	3944.8	3963.6	3966.6	3968.1	3960.6	3970.6	3972.6
42.5°	4126.5	4172.2	4215.2	4246.6	4283.1	4310.4	4345.9	4361.0	4390.0	4419.8	4437.0
45°	4378.2	4444.1	4505.9	4570.2	4633.5	4702.8	4770.2	4817.8	4887.2	4938.8	4971.2
47.5°	4653.0	4740.4	4814.3	4910.5	5002.2	5084.2	5202.2	5296.9	5381.4	5462.0	5546.6
50°	4943.8	5050.3	5141.4	5258.9	5370.4	5498.9	5637.2	5757.7	5890.4	6018.5	6132.4
52.5°	5249.2	5375.9	5499.0	5619.5	5754.6	5894.5	6044.4	6218.5	6377.6	6570.5	6708.7
55°	5562.2	5715.7	5846.8	5972.9	6116.2	6271.2	6449.4	6655.6	6857.6	7068.8	7278.4
57.5°	5819.9	6011.4	6154.7	6302.0	6456.5	6610.0	6831.2	7042.4	7298.7	7558.0	7820.2
60°	5999.4	6255.0	6428.6	6615.0	6793.8	6980.1	7218.6	7485.6	7806.0	8120.0	8476.6
62.5°	6200.2	6558.8	6802.4	7051.0	7268.2	7492.1	7811.1	8118.5	8530.2	8891.8	9340.4
65°	6492.6	6976.6	7335.2	7670.4	7962.0	8266.8	8645.2	9029.6	9500.4	10000.3	10562.9
67.5°	6634.4	7193.4	7662.8	8076.5	8449.2	8837.6	9228.0	9682.8	10213.5	10815.1	11432.9
69°	6348.0	6902.2	7442.0	7860.2	8252.8	8667.4	9085.2	9544.0	10066.6	10691.0	11345.8
70°	5952.2	6486.9	7060.6	7480.0	7876.0	8306.4	8731.8	9195.2	9695.0	10338.0	11000.4
72.5°	4503.8	4957.1	5514.2	5957.2	6373.5	6808.4	7246.5	7648.6	8155.5	8774.3	9384.5
75°	2804.2	3114.8	3615.6	4060.8	4395.5	4768.2	5179.4	5560.2	6069.2	6507.7	7094.6
77.5°	1500.5	1651.4	1943.6	2262.6	2448.9	2630.8	2898.6	3105.2	3319.4	3573.2	3815.7
80°	912.0	972.8	1072.6	1141.4	1115.6	1041.2	1017.4	942.9	969.8	924.2	891.2
82.5°	774.1	815.3	876.0	917.6	887.2	768.2	633.5	533.2	462.4	394.5	335.2
85°	588.8	618.8	650.2	669.0	667.4	608.2	483.1	374.2	291.6	225.8	187.9
87.5°	230.7	246.1	268.9	265.4	277.0	279.0	218.2	168.6	120.0	81.1	70.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8	2912.8
2.5°	2919.8	2919.4	2919.8	2921.4	2921.4	2922.4	2921.4	2921.9	2920.4	2918.9	2919.9
5°	2955.8	2954.8	2955.8	2956.8	2956.8	2955.8	2958.4	2958.4	2957.4	2955.8	2956.3
7.5°	3017.6	3018.1	3016.6	3021.6	3017.1	3017.6	3020.6	3020.1	3019.1	3019.6	3020.1
10°	3103.7	3103.2	3104.2	3107.2	3102.6	3105.7	3109.2	3110.3	3107.8	3107.8	3108.2
12.5°	3198.9	3203.0	3203.5	3205.5	3205.5	3208.0	3208.5	3209.0	3211.0	3211.6	3208.5
15°	3290.0	3293.0	3295.1	3297.1	3294.6	3298.2	3302.2	3302.2	3301.7	3303.7	3300.7
17.5°	3346.2	3348.8	3352.4	3351.8	3352.3	3355.4	3357.9	3358.9	3359.9	3359.9	3360.4
20°	3364.0	3365.5	3367.5	3369.6	3370.6	3373.6	3375.6	3377.2	3378.2	3377.2	3377.7
22.5°	3349.8	3351.8	3355.9	3357.4	3357.9	3362.5	3364.5	3366.0	3367.0	3368.0	3366.5
25°	3325.4	3327.5	3331.6	3333.1	3334.1	3338.2	3340.6	3344.2	3345.2	3345.8	3346.3
27.5°	3308.8	3309.8	3312.8	3314.9	3315.4	3319.9	3323.5	3326.0	3326.5	3327.0	3327.0
30°	3309.3	3309.2	3312.8	3313.4	3312.8	3316.8	3318.9	3320.4	3321.4	3321.4	3321.9
32.5°	3344.2	3342.2	3345.2	3340.7	3341.2	3340.7	3340.2	3341.7	3340.7	3341.2	3339.2
35°	3443.0	3437.4	3432.8	3434.8	3427.8	3417.6	3423.2	3420.7	3415.2	3415.6	3417.2
37.5°	3632.4	3626.8	3631.8	3627.4	3628.8	3614.6	3618.2	3605.6	3602.0	3606.6	3593.4
40°	3968.6	3966.1	3975.7	3971.6	3974.2	3978.2	3981.8	3969.6	3949.4	3967.6	3968.1
42.5°	4434.5	4457.3	4466.4	4479.0	4492.8	4486.6	4498.8	4502.4	4480.0	4496.8	4500.8
45°	5018.9	5043.2	5071.6	5080.2	5102.4	5105.5	5114.6	5117.1	5096.8	5098.9	5103.4
47.5°	5631.1	5675.6	5709.0	5732.4	5755.6	5760.2	5765.3	5755.7	5757.2	5761.8	5761.8
50°	6232.7	6327.9	6387.2	6433.2	6473.2	6452.4	6470.2	6471.7	6477.8	6465.2	6472.7
52.5°	6865.2	6991.3	7090.5	7168.0	7192.3	7266.2	7235.9	7259.2	7274.8	7251.6	7266.8
55°	7483.0	7662.8	7822.2	7934.6	8013.7	8088.6	8100.3	8160.6	8153.4	8176.2	8166.1
57.5°	8070.4	8321.6	8549.4	8716.1	8829.5	8944.0	9021.4	9087.2	9093.8	9159.2	9122.2
60°	8780.9	9130.8	9424.0	9672.1	9839.8	10009.9	10144.1	10252.0	10276.8	10388.7	10351.7
62.5°	9739.5	10166.4	10541.2	10832.3	11205.5	11385.3	11646.6	11809.6	11911.4	11939.2	11991.4
65°	11087.0	11643.0	12137.2	12603.2	13022.9	13314.1	13616.4	13859.5	14054.4	14038.2	14118.3
67.5°	12088.2	12722.2	13317.2	13875.8	14327.4	14702.2	15049.5	15312.4	15486.6	15597.4	15644.6
69°	11983.8	12664.4	13320.8	13917.2	14383.1	14801.9	15140.2	15399.0	15598.4	15719.0	15753.9
70°	11637.0	12336.2	13020.4	13605.8	14080.8	14540.6	14885.0	15173.1	15363.0	15494.6	15514.9
72.5°	10065.6	10823.2	11428.3	12066.9	12524.2	12989.6	13206.2	13563.3	13810.9	13891.0	13889.4
75°	7591.8	8223.8	8755.6	9227.5	9636.7	9952.2	10054.4	10308.7	10514.2	10511.8	10492.5
77.5°	4088.2	4237.0	4436.0	4502.9	4629.0	4626.9	4500.4	4540.3	4656.8	4431.0	4503.9
80°	877.0	863.9	852.8	846.2	842.6	844.2	848.7	819.8	848.2	835.6	781.9
82.5°	305.4	298.3	291.2	296.2	292.7	295.7	294.7	298.2	297.8	296.8	289.7
85°	171.6	165.6	162.0	164.6	159.0	154.0	150.4	148.9	148.4	144.8	142.8
87.5°	65.3	64.8	64.3	61.8	55.8	51.2	48.1	42.0	39.5	36.0	33.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)